```
                    Welcome to DialogClassic Web(tm)
 Dialog level 05.10.03D
Last logoff:  14feb06 17:43:50
Logon file001 15feb06 14:33:23
         *** ANNOUNCEMENT ***
                  ***
NEW FILES RELEASED
***Index Chemicus (File 302)
***Inspec (File 202)
***Physical Education Index (File 138)
                  ***
RELOADS COMPLETED
*** The 2005 reload of the CLAIMS files (Files 340, 341, 942)
is now available online.

RESUMED UPDATING
***ERIC (File 1)
                  ***
Chemical Structure Searching now available in Prous Science Drug
Data Report (F452), Prous Science Drugs of the Future (F453),
IMS R&D Focus (F445/955), Pharmaprojects (F128/928), Beilstein
Facts (F390), Derwent Chemistry Resource (F355) and Index Chemicus
(File 302).
                  ***
     >>> Enter BEGIN HOMEBASE for Dialog Announcements <<<
     >>>    of new databases, price changes, etc.      <<<                    ****
KWIC is set to 50.
HILIGHT set on as ' '
 * * *

File   1:ERIC 1966-2006/Jan (c) format only 2006 Dialog

      Set  Items  Description
      ---  -----  -----------
Cost is in DialUnits
?

B 155, 159, 5, 73
       15feb06 14:33:38 User259876 Session D843.1
            $0.82    0.233 DialUnits File1
     $0.82  Estimated cost File1
     $0.06  INTERNET
     $0.88  Estimated cost this search
     $0.88  Estimated total session cost   0.233 DialUnits

SYSTEM:OS  - DIALOG OneSearch
  File 155:MEDLINE(R) 1951-2006/Feb 13
        (c) format only 2006 Dialog
 *File 155: Medline has resumed updating.
  File 159:Cancerlit 1975-2002/Oct
        (c) format only 2002 Dialog
 *File 159: Cancerlit is no longer updating.
Please see HELP NEWS159.
  File   5:Biosis Previews(R) 1969-2006/Feb W2
        (c) 2006 BIOSIS
  File  73:EMBASE 1974-2006/Feb 15
        (c) 2006 Elsevier Science B.V.

      Set  Items  Description
      ---  -----  -----------
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```
?

S (PHOSPHATIDYLINOSITOL (W) 3-KINASE) (S) (FUSION OR MUTANT OR (CONSTITUTIVELY (W) A
          88721  PHOSPHATIDYLINOSITOL
              4  3-KINASE
         331371  FUSION
         558331  MUTANT
          81591  CONSTITUTIVELY
        1307705  ACTIVE
          17739  CONSTITUTIVELY(W)ACTIVE
      S1      0  (PHOSPHATIDYLINOSITOL (W) 3-KINASE) (S) (FUSION OR MUTANT
                 OR (CONSTITUTIVELY (W) ACTIVE))
?

S (PI (W) 3-KINASE) (S) (FUSION OR MUTANT OR (CONSTITUTIVELY (W) ACTIVE))
         148328  PI
              4  3-KINASE
         331371  FUSION
         558331  MUTANT
          81591  CONSTITUTIVELY
        1307705  ACTIVE
          17739  CONSTITUTIVELY(W)ACTIVE
      S2      0  (PI (W) 3-KINASE) (S) (FUSION OR MUTANT OR
                 (CONSTITUTIVELY (W) ACTIVE))
?

S (PI3-K) (S) (FUSION OR MUTANT OR (CONSTITUTIVELY (W) ACTIVE))
             85  PI3-K
         331371  FUSION
         558331  MUTANT
          81591  CONSTITUTIVELY
        1307705  ACTIVE
          17739  CONSTITUTIVELY(W)ACTIVE
      S3      0  (PI3-K) (S) (FUSION OR MUTANT OR (CONSTITUTIVELY (W)
                 ACTIVE))
?

S (PHOSPHATIDYLINOSITOL (W) 3 (W) KINASE) OR (PI3 (W) KINASE) OR (PI (W) 3-KINASE)
Processing
          88721  PHOSPHATIDYLINOSITOL
        8279141  3
         798712  KINASE
          40306  PHOSPHATIDYLINOSITOL(W)3(W)KINASE
           8650  PI3
         798712  KINASE
           5857  PI3(W)KINASE
         148328  PI
              4  3-KINASE
              0  PI(W)3-KINASE
      S4  42572  (PHOSPHATIDYLINOSITOL (W) 3 (W) KINASE) OR (PI3 (W)
                 KINASE) OR (PI (W) 3-KINASE)
?

S S4 AND (MUTANT OR FUSION OR (CONSTITUTIVELY (W) ACTIVE))
          42572  S4
         558331  MUTANT
         331371  FUSION
          81591  CONSTITUTIVELY
        1307705  ACTIVE
          17739  CONSTITUTIVELY(W)ACTIVE
```

```
      S5     7747  S4 AND (MUTANT OR FUSION OR (CONSTITUTIVELY (W) ACTIVE))
?

S S5 AND (P110 OR P85 OR ISH2)
            7747  S5
            2248  P110
            6181  P85
              60  ISH2
      S6     1375  S5 AND (P110 OR P85 OR ISH2)
?

S S6 AND ((CELL (W) MEMBRANE (W) TARGETING) OR MYRISTOYLATION OR FARNESYLATION OR PA
Processing
            1375  S6
         8959059  CELL
         1830112  MEMBRANE
          185860  TARGETING
              17  CELL(W)MEMBRANE(W)TARGETING
            2568  MYRISTOYLATION
            2443  FARNESYLATION
               0  PALMITTOYLATION
      S7       16  S6 AND ((CELL (W) MEMBRANE (W) TARGETING) OR
                   MYRISTOYLATION OR FARNESYLATION OR PALMITTOYLATION)
?

RD
      S8        5  RD  (unique items)
?

T S8/3,K/ALL

  8/3,K/1      (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2006 Dialog. All rts. reserv.

13029606   PMID: 10990531
 Regulation  of voltage-dependent calcium channels in rat sensory neurones
 involves a Ras-mitogen-activated protein kinase pathway.
  Fitzgerald E M
  Department  of  Pharmacology,  University  College  London, Gower Street,
London WC1E 6BT, UK. e.fitzgerald@ucl.ac.uk
  Journal  of physiology (ENGLAND)   Sep 15 2000,  527 Pt 3  p433-44,  ISSN
0022-3751   Journal Code: 0266262
  Publishing Model Print
  Document type: Journal Article
  Languages: ENGLISH
  Main Citation Owner: NLM
  Record type: MEDLINE; Completed

  ...effectors), significantly reduced calcium current density by 47 %. Ras
effector region mutants V12C40 (tyrosine 40 to cysteine; activates the p110
alpha-subunit of phosphatidylinositol 3- kinase  ) and V12G37 (glutamic acid
37  to  glycine;  activates Ral guanine nucleotide dissociation stimulator)
had no significant effect on VDCC current. However, V12S35Ras (threonine 35
to...


  8/3,K/2      (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2006 Dialog. All rts. reserv.
```

12764381 PMID: 10692423
The catalytic subunit of phosphoinositide 3-kinase: requirements for oncogenicity.
Aoki M; Schetter C; Himly M; Batista O; Chang H W; Vogt P K
Department of Molecular and Experimental Medicine, The Scripps Research Institute, BCC239, La Jolla, California 92037, USA.
Journal of biological chemistry (UNITED STATES) Mar 3 2000, 275 (9) p6267-75, ISSN 0021-9258 Journal Code: 2985121R
Contract/Grant No.: CA 42564; CA; NCI; CA 78230; CA; NCI
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

... subunit of phosphoinositide (PI) 3-kinase, p110alpha. The v-P3k protein is oncogenic in vivo and in vitro; its cellular counterpart, c-P3k, lacks oncogenicity. **Fusion** of viral Gag sequences to the amino terminus of c-P3k activates the transforming potential. Activation can also be achieved by the addition of a myristylation signal to the amino terminus or of a **farnesylation** signal to the carboxyl terminus of c-P3k. A mutated myristylation signal was equally effective; it also caused a strong increase in the kinase activity...

... in v-P3k were shown to be irrelevant to the activation of oncogenic potential. Interactions of P3k with the regulatory subunit of PI 3-kinase, **p85** , or with Ras are not required for transformation. These results support the conclusion that the oncogenicity of P3k depends on constitutive lipid kinase activity. Akt...
Descriptors: *1- **Phosphatidylinositol 3 - Kinase** --metabolism--ME; *Oncogene Proteins--metabolism--ME; *Sarcoma Viruses, Avian--enzymology--EN ; *Viral Proteins--metabolism--ME; 1- **Phosphatidylinositol 3 - Kinase** --genetics--GE; Animals; Cell Transformation, Neoplastic--genetics--GE; Cells, Cultured; Chick Embryo; Fluorescent Antibody Technique; Gene Expression Regulation, Neoplastic; Gene Products, gag--genetics--GE; Mutation...
Enzyme No.: EC 2.7.1.137 (1 **Phosphatidylinositol 3 Kinase**)
Chemical Name: Gene Products, gag; Oncogene Proteins; Peptides; Viral Proteins; Myristic Acid; FLAG peptide; 1- **Phosphatidylinositol 3 - Kinase**

8/3,K/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11675429 PMID: 8939574
Constitutive activation of protein kinase B and phosphorylation of p47phox by a membrane-targeted phosphoinositide 3-kinase.
Didichenko S A; Tilton B; Hemmings B A; Ballmer-Hofer K; Thelen M
Theodor Kocher-Institut University of Bern, Switzerland.
Current biology - CB (ENGLAND) Oct 1 1996, 6 (10) p1271-8, ISSN 0960-9822 Journal Code: 9107782
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

... kinase from the cytosol to the plasma membrane where the kinase

interacts with its substrate phosphatidylinositol (4,5)-bisphosphate. Thus, a membrane-targeted and therefore **constitutively active** kinase could help elucidate the role of PI 3-kinase in intracellular signaling. RESULTS: The membrane-targeting sequence of Ha-Ras, containing the consensus sequence for palmitoylation and **farnesylation** , was fused to the carboxyl terminus of **p110** alpha, the catalytic subunit of PI 3-kinase. The lipid anchor directed PI 3-kinase to the membrane and led to constitutively elevated phosphatidylinositol (3...
; 1- **Phosphatidylinositol 3 - Kinase** ; 3T3 Cells; Amino Acid Sequence; Androstadienes--pharmacology--PD; Animals; Ca(2+)-Calmodulin Dependent Protein Kinase--metabolism--ME; Cell Line; Cell Membrane--enzymology--EN; Enzyme Activation...
...Enzyme No.: EC 2.7.1 (Phosphotransferases (Alcohol Group Acceptor)); EC 2.7.1.123 (Ca(2+)-Calmodulin Dependent Protein Kinase); EC 2.7.1.137 (1- **Phosphatidylinositol 3 - Kinase**); EC 2.7.1.37 (Glycogen Synthase Kinases); EC 2.7.1.37 (Protein-Serine-Threonine Kinases); EC 2.7.1.37 (proto-oncogene protein...
...Chemical Name: Proto-Oncogene Proteins; phosphatidylinositol 3,4,5-triphosphate; NCF1 protein, human; wortmannin; NADPH Oxidase; Phosphotransferases (Alcohol Group Acceptor); Ca(2+)-Calmodulin Dependent Protein Kinase; 1- **Phosphatidylinositol 3 - Kinase** ; Glycogen Synthase Kinases; Protein-Serine-Threonine Kinases; proto-oncogene protein akt; Proto-Oncogene Protein p21(ras)

8/3,K/4 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11451828 PMID: 8702995
Akt, a pleckstrin homology domain containing kinase, is activated primarily by phosphorylation.
Kohn A D; Takeuchi F; Roth R A
Department of Molecular Pharmacology, Stanford University School of Medicine, Stanford, California 94305, USA.
Journal of biological chemistry (UNITED STATES) Sep 6 1996, 271 (36) p21920-6, ISSN 0021-9258 Journal Code: 2985121R
Contract/Grant No.: 5T32 GM07365; GM; NIGMS; DK 34926; DK; NIDDK
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

... stimulated by receptor tyrosine kinases and contains a pleckstrin homology domain. One model proposed to explain this activation suggests that receptor tyrosine kinases stimulate a **phosphatidylinositol 3 - kinase** whose lipid products directly activate Akt kinase by interacting with its pleckstrin homology domain. In the present study, we show, in three cell types, that Akt does not require its pleckstrin homology domain to respond to either insulin or platelet-derived growth factor. Moreover, attachment of the src **myristoylation** signal to target Akt, without its pleckstrin homology domain, to the membrane constitutively activates Akt by causing an increase in its basal level of phosphorylation. This **constitutively active** form of Akt can also activate p70(S6K), indicating that the pleckstrin homology domain is not necessary for downstream interactions. **Fusion** of the inter src homology 2 domain from the **p85** regulatory subunit of the **phosphatidylinositol 3** -□kinase□to Akt also constitutively activated Akt and induced an association with the lipid kinase. Phosphorylation of this **fusion** protein still critically

contributes toward its increased activity. The sum of these results indicates that the primary mechanism of Akt activation is via protein phosphorylation.
; 1- **Phosphatidylinositol 3 - Kinase** ; Animals; Cell Line; Cricetulus; Enzyme Activation; Hamsters; Insulin--metabolism--ME; Mutagenesis, Site-Directed; Phosphorylation; Phosphotransferases (Alcohol Group Acceptor)--metabolism--ME; Platelet-Derived Growth Factor--metabolism...
Enzyme No.: EC 2.7.1 (Phosphotransferases (Alcohol Group Acceptor)); EC 2.7.1.137 (1- **Phosphatidylinositol 3 - Kinase**); EC 2.7.1.37 (Protein-Serine-Threonine Kinases); EC 2.7.1.37 (Ribosomal Protein S6 Kinases); EC 2.7.1.37 (proto-oncogene...
Chemical Name: Blood Proteins; Phosphoproteins; Platelet-Derived Growth Factor; Proto-Oncogene Proteins; platelet protein P47; Insulin; Phosphotransferases (Alcohol Group Acceptor); 1- **Phosphatidylinositol 3 - Kinase** ; Protein-Serine-Threonine Kinases; Ribosomal Protein S6 Kinases; proto-oncogene protein akt

8/3,K/5 (Item 5 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11412963 PMID: 8754810
Membrane localization of phosphatidylinositol 3 - kinase □is□ **sufficient to activate multiple signal-transducing kinase pathways.**
Klippel A; Reinhard C; Kavanaugh W M; Apell G; Escobedo M A; Williams L T
Chiron Corporation, Emeryville, California 94608, USA.
Molecular and cellular biology (UNITED STATES) Aug 1996, 16 (8) p4117-27, ISSN 0270-7306 Journal Code: 8109087
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Membrane localization of phosphatidylinositol 3 - kinase □is□ **sufficient to activate multiple signal-transducing kinase pathways.**
Phosphatidylinositol (PI) 3-kinase is a cytoplasmic signaling molecule recruited to the membrane by activated growth factor receptors. The **p85** subunit of PI 3-kinase links the catalytic **p110** subunit to activated growth factor receptors and is required for enzymatic activity of **p110** . In this report, we describe the effects of expressing novel forms of **p110** that are targeted to the membrane by either N-terminal **myristoylation** or C-terminal **farnesylation** . The expression of membrane-localized **p110** is sufficient to trigger downstream responses characteristic of growth factor action, including the stimulation of pp70 S6 kinase, Akt/Rac, and Jun N-terminal kinase (JNK). These responses can also be triggered by expression of a form of **p110** (**p110** *) that is cytosolic but exhibits a high specific activity. Finally, targeting of p110* to the membrane results in maximal activation of downstream responses. Our data demonstrate that either membrane-targeted forms of **p110** or a form of **p110** with high specific activity can act as **constitutively active** PI 3-kinases and induce PI 3-kinase-dependent responses in the absence of growth factor stimulation. The results also show that PI 3-kinase...
; 1- **Phosphatidylinositol 3 - Kinase** ; Animals; Base Sequence; Ca(2+)-Calmodulin Dependent Protein Kinase--metabolism--ME; Cell Compartmentation; Cell Cycle Proteins--metabolism--ME; Cell Membrane --physiology--PH; Cells, Cultured; Cercopithecus...
Enzyme No.: EC 2.7.1 (Phosphotransferases (Alcohol Group Acceptor)); EC 2.7.1.123 (Ca(2+)-Calmodulin Dependent Protein Kinase); EC 2.7.1.137 (1-

Phosphatidylinositol 3 - Kinase); EC 2.7.1.37 (JNK Mitogen-Activated Protein Kinases); EC 2.7.1.37 (Mitogen-Activated Protein Kinases); EC 2.7.1.37 (Protein...
Chemical Name: Cell Cycle Proteins; DNA Primers; Proto-Oncogene Proteins; Phosphotransferases (Alcohol Group Acceptor); Ca(2+)-Calmodulin Dependent Protein Kinase; 1- **Phosphatidylinositol 3 - Kinase** ; JNK Mitogen-Activated Protein Kinases; Mitogen-Activated Protein Kinases; Protein-Serine-Threonine Kinases; Ribosomal Protein S6 Kinases; proto-oncogene protein akt; GTP-Binding Proteins; Proto...
?

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Set     Items   Description
S1          0   (PHOSPHATIDYLINOSITOL (W) 3-KINASE) (S) (FUSION OR MUTANT -
             OR (CONSTITUTIVELY (W) ACTIVE))
S2          0   (PI (W) 3-KINASE) (S) (FUSION OR MUTANT OR (CONSTITUTIVELY
              (W) ACTIVE))
S3          0   (PI3-K) (S) (FUSION OR MUTANT OR (CONSTITUTIVELY (W) ACTIV-
             E))
S4      42572   (PHOSPHATIDYLINOSITOL (W) 3 (W) KINASE) OR (PI3 (W) KINASE)
              OR (PI (W) 3-KINASE)
S5       7747   S4 AND (MUTANT OR FUSION OR (CONSTITUTIVELY (W) ACTIVE))
S6       1375   S5 AND (P110 OR P85 OR ISH2)
S7         16   S6 AND ((CELL (W) MEMBRANE (W) TARGETING) OR MYRISTOYLATION
              OR FARNESYLATION OR PALMITTOYLATION)
S8          5   RD  (unique items)
?

S S6 AND (MEMBRANE (W) LOCALIZATION)
            1375  S6
         1830112  MEMBRANE
          531685  LOCALIZATION
            5030  MEMBRANE(W)LOCALIZATION
      S9      13  S6 AND (MEMBRANE (W) LOCALIZATION)
?

RD
     S10       5  RD  (unique items)
?


Set     Items   Description
S1          0   (PHOSPHATIDYLINOSITOL (W) 3-KINASE) (S) (FUSION OR MUTANT -
             OR (CONSTITUTIVELY (W) ACTIVE))
S2          0   (PI (W) 3-KINASE) (S) (FUSION OR MUTANT OR (CONSTITUTIVELY
              (W) ACTIVE))
S3          0   (PI3-K) (S) (FUSION OR MUTANT OR (CONSTITUTIVELY (W) ACTIV-
             E))
S4      42572   (PHOSPHATIDYLINOSITOL (W) 3 (W) KINASE) OR (PI3 (W) KINASE)
              OR (PI (W) 3-KINASE)
S5       7747   S4 AND (MUTANT OR FUSION OR (CONSTITUTIVELY (W) ACTIVE))
S6       1375   S5 AND (P110 OR P85 OR ISH2)
S7         16   S6 AND ((CELL (W) MEMBRANE (W) TARGETING) OR MYRISTOYLATION
              OR FARNESYLATION OR PALMITTOYLATION)
S8          5   RD  (unique items)
S9         13   S6 AND (MEMBRANE (W) LOCALIZATION)
S10         5   RD  (unique items)
?

S S10 NOT S8
```

```
              5  S10
              5  S8
     S11      4  S10 NOT S8
?

T S11/3,K/ALL
```

11/3,K/1 (Item 1 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

18148296 PMID: 15763428

A-Raf associates with and regulates platelet-derived growth factor receptor signalling.

Mahon Elizabeth S; Hawrysh Andrea D; Chagpar Ryaz B; Johnson Lindsey M; Anderson Deborah H

Department of Biochemistry, University of Saskatchewan, 107 Wiggins Ave., Saskatoon, Saskatchewan, Canada S7N 5E5.

Cellular signalling (England) Jul 2005, 17 (7) p857-68, ISSN 0898-6568 Journal Code: 8904683

Publishing Model Print-Electronic
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

...binding sites for other signalling proteins (Nck, phosphatidylinositol 3'-kinase (PI3K), RasGAP, Grb2, SHP). Activated A-Raf expression also altered the activation of PLCgamma1, and **p85** -associated PI3K. Thus, A-Raf can regulate PLCgamma1 signalling via a PDGFR-dependent mechanism and may also regulate PI3K signalling via a PDGFR-independent mechanism.

11/3,K/2 (Item 2 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

16446847 PMID: 15561106

The proto-oncogene Fgr regulates cell migration and this requires its plasma membrane localization□.□

Continolo Silvia; Baruzzi Anna; Majeed Meytham; Caveggion Elena; Fumagalli Laura; Lowell Clifford A; Berton Giorgio

Department of Pathology, Section of General Pathology, University of Verona, Verona, Italy.

Experimental cell research (United States) Jan 15 2005, 302 (2) p253-69, ISSN 0014-4827 Journal Code: 0373226

Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

The proto-oncogene Fgr regulates cell migration and this requires its plasma membrane localization□.□

... domains in regulating cell migration, we expressed various Fgr molecules in COS-7 cells. Full-length, membrane-bound Fgr, but not an N-terminal truncation **mutant** that distributed to an intracellular compartment, increased cell migration on fibronectin and enhanced phosphorylation of the **p85** subunit of **phosphatidylinositol 3** -□kinase□ (PI3K), cortactin and focal adhesion kinase (FAK) at Y397 and Y576. Fgr

increased Rac GTP loading, and phosphorylation of the Rac GEF Vav2, and bound to a protein complex formed by the Rho inhibitor p190RhoGAP and FAK, increasing p190RhoGAP phosphorylation, in a manner absolutely dependent on **membrane localization** . A kinase-defective truncation **mutant** of Fgr increased cell migration, albeit to a much lower extent than full-length Fgr, and was found to associate with the plasma membrane, to...
; 1- **Phosphatidylinositol 3 - Kinase** --metabolism--ME; Animals; COS Cells; Cercopithecus aethiops; Enzyme Activation; Fibronectins--metabolism --ME; Green Fluorescent Proteins--metabolism--ME; Immunoblotting; Macrophages--metabolism--ME; Mice; Microfilament Proteins--metabolism--ME; Microscopy, Confocal; Mutation; Phosphorylation; Precipitin Tests; Protein-Tyrosine Kinase--metabolism--ME; Proto-Oncogene Proteins--chemistry --CH; Proto-Oncogene Proteins--genetics--GE; Recombinant **Fusion** Proteins --metabolism--ME; rac GTP-Binding Proteins--metabolism--ME; rho GTP-Binding Proteins--metabolism--ME
Enzyme No.: EC 2.7.1.- (focal adhesion protein-tyrosine kinase); EC 2.7.1.112 (Protein-Tyrosine Kinase); EC 2.7.1.137 (1- **Phosphatidylinositol 3 - Kinase**); EC 3.6.1.- (rac GTP-Binding Proteins); EC 3.6.1.- (rho GTP-Binding Proteins)
Chemical Name: Fibronectins; Microfilament Proteins; Proto-Oncogene Proteins; Recombinant **Fusion** Proteins; cortactin; proto-oncogene protein c-fgr; Green Fluorescent Proteins; focal adhesion protein-tyrosine kinase; Protein-Tyrosine Kinase; 1- **Phosphatidylinositol 3 - Kinase** ; rac GTP-Binding Proteins; rho GTP-Binding Proteins

11/3,K/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

14217885 PMID: 11897789
Phosphatidylinositol 3 - kinase **is required for insulin-stimulated tyrosine phosphorylation of Shc in 3T3-L1 adipocytes.**
Ugi Satoshi; Sharma Prem M; Ricketts William; Imamura Takeshi; Olefsky Jerrold M
Department of Medicine, Division of Endocrinology and Metabolism, University of California, San Diego, La Jolla, California 92093-0673, USA.
Journal of biological chemistry (United States) May 24 2002, 277 (21) p18592-7, ISSN 0021-9258 Journal Code: 2985121R
Contract/Grant No.: DK 33651; DK; NIDDK
Publishing Model Print-Electronic
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Phosphatidylinositol 3 - kinase **is required for insulin-stimulated tyrosine phosphorylation of Shc in 3T3-L1 adipocytes.**
The interactions between the **phosphatidylinositol 3 - kinase** (PI 3-kinase) and Ras/MAPK kinase pathways have been the subject of considerable interest. In the current studies, we find that epidermal growth factor...

... insulin was inhibited by wortmannin, supporting the view that PI 3-kinase-generated phospholipids mediate insulin-stimulated Shc phosphorylation. Consistent with this, expression of a **constitutively active** PI 3-kinase (**p110** (C)(AAX)) increased□membrane localization□ of Shc, and this was completely blocked by wortmannin. A **mutant** Shc with a disrupted PTB domain (Shc S154) did not localize to the membrane in **p110** (C)(AAX)-expressing cells or after insulin stimulation and was not

phosphorylated by insulin. In summary, 1) PI 3-kinase is a necessary early step...
Descriptors: *1- **Phosphatidylinositol 3 - Kinase** --metabolism--ME; *Adaptor Proteins, Signal Transducing; *Adipocytes--metabolism--ME; *Insulin--pharmacology--PD; *Tyrosine--metabolism--ME
Enzyme No.: EC 2.7.1.137 (1 **Phosphatidylinositol 3 Kinase**)
Chemical Name: Adaptor Proteins, Signal Transducing; Platelet-Derived Growth Factor; Proteins; growth factor receptor-bound protein-2; Insulin; Tyrosine; Epidermal Growth Factor; 1 **Phosphatidylinositol 3 Kinase**

11/3,K/4 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

13340679 PMID: 10205164
Chemoattractant-mediated transient activation and membrane localization **of Akt/PKB is required for efficient chemotaxis to cAMP in Dictyostelium.**
Meili R; Ellsworth C; Lee S; Reddy T B; Ma H; Firtel R A
Department of Biology, Center for Molecular Genetics, Room 225, University of California, San Diego, 9500 Gilman Drive, La Jolla, CA 92093-0634, USA.
EMBO journal (ENGLAND) Apr 15 1999, 18 (8) p2092-105, ISSN 0261-4189 Journal Code: 8208664
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Chemoattractant-mediated transient activation and membrane localization **of Akt/PKB is required for efficient chemotaxis to cAMP in Dictyostelium.**
...and transiently activated by the chemoattractant cAMP. This activation takes place through G protein-coupled chemoattractant receptors via a pathway that requires homologues of mammalian **p110** phosphoinositide-3 kinase. pkbA null cells exhibit aggregation-stage defects that include aberrant chemotaxis, a failure to polarize properly in a chemoattractant gradient and aggregation...
; 1- **Phosphatidylinositol 3 - Kinase** --metabolism--ME; Amino Acid Sequence; Animals; Base Sequence; Biological Transport; Cell Membrane --metabolism--ME; DNA Primers; Dictyostelium--metabolism--ME; Enzyme Activation; Luminescent Proteins--genetics--GE; Molecular Sequence Data; Proto-Oncogene Proteins--genetics--GE; Recombinant **Fusion** Proteins --genetics--GE; Recombinant **Fusion** Proteins--metabolism--ME
Enzyme No.: EC 2.7.1.137 (1- **Phosphatidylinositol 3 - Kinase**); EC 2.7.1.37 (Protein-Serine-Threonine Kinases); EC 2.7.1.37 (proto-oncogene protein akt)
Chemical Name: Chemotactic Factors; DNA Primers; Luminescent Proteins; Proto-Oncogene Proteins; Recombinant **Fusion** Proteins; Cyclic AMP; 1- **Phosphatidylinositol 3 - Kinase** ; Protein-Serine-Threonine Kinases; proto-oncogene protein akt
?

Set	Items	Description
S1	0	(PHOSPHATIDYLINOSITOL (W) 3-KINASE) (S) (FUSION OR MUTANT - OR (CONSTITUTIVELY (W) ACTIVE))
S2	0	(PI (W) 3-KINASE) (S) (FUSION OR MUTANT OR (CONSTITUTIVELY

```
             (W) ACTIVE))
S3           0   (PI3-K) (S) (FUSION OR MUTANT OR (CONSTITUTIVELY (W) ACTIV-
             E))
S4       42572   (PHOSPHATIDYLINOSITOL (W) 3 (W) KINASE) OR (PI3 (W) KINASE)
              OR (PI (W) 3-KINASE)
S5        7747   S4 AND (MUTANT OR FUSION OR (CONSTITUTIVELY (W) ACTIVE))
S6        1375   S5 AND (P110 OR P85 OR ISH2)
S7          16   S6 AND ((CELL (W) MEMBRANE (W) TARGETING) OR MYRISTOYLATION
              OR FARNESYLATION OR PALMITTOYLATION)
S8           5   RD  (unique items)
S9          13   S6 AND (MEMBRANE (W) LOCALIZATION)
S10          5   RD  (unique items)
S11          4   S10 NOT S8
?

S S6 NOT PY>1996
            1375  S6
        14434386  PY>1996
     S12     433  S6 NOT PY>1996
?

S S12 AND (VECTOR)
             433  S12
          317250  VECTOR
     S13       0  S12 AND (VECTOR)
?


Set     Items   Description
S1          0   (PHOSPHATIDYLINOSITOL (W) 3-KINASE) (S) (FUSION OR MUTANT -
             OR (CONSTITUTIVELY (W) ACTIVE))
S2          0   (PI (W) 3-KINASE) (S) (FUSION OR MUTANT OR (CONSTITUTIVELY
             (W) ACTIVE))
S3          0   (PI3-K) (S) (FUSION OR MUTANT OR (CONSTITUTIVELY (W) ACTIV-
             E))
S4      42572   (PHOSPHATIDYLINOSITOL (W) 3 (W) KINASE) OR (PI3 (W) KINASE)
              OR (PI (W) 3-KINASE)
S5       7747   S4 AND (MUTANT OR FUSION OR (CONSTITUTIVELY (W) ACTIVE))
S6       1375   S5 AND (P110 OR P85 OR ISH2)
S7         16   S6 AND ((CELL (W) MEMBRANE (W) TARGETING) OR MYRISTOYLATION
              OR FARNESYLATION OR PALMITTOYLATION)
S8          5   RD  (unique items)
S9         13   S6 AND (MEMBRANE (W) LOCALIZATION)
S10         5   RD  (unique items)
S11         4   S10 NOT S8
S12       433   S6 NOT PY>1996
S13         0   S12 AND (VECTOR)
?

S S5 AND (MEMBRANE (W) (LOCALIZATION OR TARGETING))
             7747  S5
          1830112  MEMBRANE
           531685  LOCALIZATION
           185860  TARGETING
             7530  MEMBRANE(W)(LOCALIZATION OR TARGETING)
     S14       93  S5 AND (MEMBRANE (W) (LOCALIZATION OR TARGETING))
?

S S14 NOT PY>1996
              93  S14
```

```
        14434386  PY>1996
     S15      13  S14 NOT PY>1996
?

RD
     S16       4  RD  (unique items)
?

T S16/3,K/ALL

  16/3,K/1     (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2006 Dialog. All rts. reserv.

11675459   PMID: 8939609
    Phosphatidylinositol    3 -  kinase signals activate a selective subset
 of Rac/Rho-dependent effector pathways.
  Reif K; Nobes C D; Thomas G; Hall A; Cantrell D A
  Lymphocyte  Activation Laboratory, Imperial Cancer Research Fund, London,
UK. reif@icrf.icnet.uk
  Current  biology  -  CB (ENGLAND)   Nov 1 1996,  6  (11)  p1445-55,  ISSN
0960-9822   Journal Code: 9107782
  Publishing Model Print
  Document type: Journal Article
  Languages: ENGLISH
  Main Citation Owner: NLM
  Record type: MEDLINE; Completed

    Phosphatidylinositol    3 -  kinase signals activate a selective subset
 of Rac/Rho-dependent effector pathways.
  ... by  the  GTPases  Rac  and  Rho.  Recently,  a role for Rac and Rho in
regulating  gene  transcription  has become evident. RESULTS: Here, we show
that  membrane   targeting  of the p110 catalytic subunit, but not the p85
regulatory  subunit,  of  PI  3-kinase generates a constitutively  active
enzyme  that  allows  us to assess the relative contribution of PI 3-kinase
activation  to a particular cellular response. Expression of this active PI
3...
  ;  1- Phosphatidylinositol    3  - Kinase  ; 3T3 Cells; Animals; Antigens,
CD2--genetics--GE;  Antigens, CD2--metabolism--ME; Base Sequence; COS Cells
;  Cell  Membrane--metabolism--ME;  Cytoskeleton; DNA; DNA-Binding Proteins
--metabolism...
  Enzyme No.: EC 2.7.1   (Phosphotransferases (Alcohol Group Acceptor)); EC
2.7.1.137     (1-  Phosphatidylinositol      3 - Kinase );  EC  3.6.1.-
 (GTP-Binding  Proteins);  EC  3.6.1.-    (rac  GTP-Binding  Proteins);  EC
3.6.1.-   (rho GTP-Binding Proteins)
  ...Chemical   Name:  Proteins;  Proto-Oncogene  Proteins;  Proto-Oncogene
Proteins  c-fos;  Serum  Response Factor; Transcription Factors; ets-domain
protein  elk-1;  DNA;  Phosphotransferases  (Alcohol  Group  Acceptor);  1-
  Phosphatidylinositol    3  - Kinase  ; GTP-Binding Proteins; rac GTP-Binding
Proteins; rho GTP-Binding Proteins


  16/3,K/2     (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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11675429   PMID: 8939574
 Constitutive  activation  of  protein  kinase  B  and  phosphorylation of
 p47phox by a membrane-targeted phosphoinositide 3-kinase.
  Didichenko S A; Tilton B; Hemmings B A; Ballmer-Hofer K; Thelen M
```

Theodor Kocher-Institut University of Bern, Switzerland.
Current biology - CB (ENGLAND) Oct 1 1996, 6 (10) p1271-8, ISSN 0960-9822 Journal Code: 9107782
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

... kinase from the cytosol to the plasma membrane where the kinase interacts with its substrate phosphatidylinositol (4,5)-bisphosphate. Thus, a membrane-targeted and therefore **constitutively active** kinase could help elucidate the role of PI 3-kinase in intracellular signaling. RESULTS: The **membrane - targeting** sequence of Ha-Ras, containing the consensus sequence for palmitoylation and farnesylation, was fused to the carboxyl terminus of p110 alpha, the catalytic subunit of...
; 1- **Phosphatidylinositol 3 - Kinase** ; 3T3 Cells; Amino Acid Sequence; Androstadienes--pharmacology--PD; Animals; Ca(2+)-Calmodulin Dependent Protein Kinase--metabolism--ME; Cell Line; Cell Membrane--enzymology--EN; Enzyme Activation...
...Enzyme No.: EC 2.7.1 (Phosphotransferases (Alcohol Group Acceptor)); EC 2.7.1.123 (Ca(2+)-Calmodulin Dependent Protein Kinase); EC 2.7.1.137 (1- **Phosphatidylinositol 3 - Kinase**); EC 2.7.1.37 (Glycogen Synthase Kinases); EC 2.7.1.37 (Protein-Serine-Threonine Kinases); EC 2.7.1.37 (proto-oncogene protein...
...Chemical Name: Proto-Oncogene Proteins; phosphatidylinositol 3,4,5-triphosphate; NCF1 protein, human; wortmannin; NADPH Oxidase; Phosphotransferases (Alcohol Group Acceptor); Ca(2+)-Calmodulin Dependent Protein Kinase; 1- **Phosphatidylinositol 3 - Kinase** ; Glycogen Synthase Kinases; Protein-Serine-Threonine Kinases; proto-oncogene protein akt; Proto-Oncogene Protein p21(ras)

16/3,K/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11412963 PMID: 8754810
Membrane localization **of** phosphatidylinositol 3 - kinase□is□ **sufficient to activate multiple signal-transducing kinase pathways.**
Klippel A; Reinhard C; Kavanaugh W M; Apell G; Escobedo M A; Williams L T
Chiron Corporation, Emeryville, California 94608, USA.
Molecular and cellular biology (UNITED STATES) Aug 1996, 16 (8) p4117-27, ISSN 0270-7306 Journal Code: 8109087
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Membrane localization **of** phosphatidylinositol 3 - kinase□is□ **sufficient to activate multiple signal-transducing kinase pathways.**
... of downstream responses. Our data demonstrate that either membrane-targeted forms of p110 or a form of p110 with high specific activity can act as **constitutively active** PI 3-kinases and induce PI 3-kinase-dependent responses in the absence of growth factor stimulation. The results also show that PI 3-kinase...
; 1- **Phosphatidylinositol 3 - Kinase** ; Animals; Base Sequence; Ca(2+)-Calmodulin Dependent Protein Kinase--metabolism--ME; Cell Compartmentation; Cell Cycle Proteins--metabolism--ME; Cell Membrane

--physiology--PH; Cells, Cultured; Cercopithecus...
Enzyme No.: EC 2.7.1 (Phosphotransferases (Alcohol Group Acceptor)); EC 2.7.1.123 (Ca(2+)-Calmodulin Dependent Protein Kinase); EC 2.7.1.137 (1-**Phosphatidylinositol 3 - Kinase**); EC 2.7.1.37 (JNK Mitogen-Activated Protein Kinases); EC 2.7.1.37 (Mitogen-Activated Protein Kinases); EC 2.7.1.37 (Protein...
Chemical Name: Cell Cycle Proteins; DNA Primers; Proto-Oncogene Proteins; Phosphotransferases (Alcohol Group Acceptor); Ca(2+)-Calmodulin Dependent Protein Kinase; 1- **Phosphatidylinositol 3 - Kinase** ; JNK Mitogen-Activated Protein Kinases; Mitogen-Activated Protein Kinases; Protein-Serine-Threonine Kinases; Ribosomal Protein S6 Kinases; proto-oncogene protein akt; GTP-Binding Proteins; Proto...

16/3,K/4 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

10983722 PMID: 7762290
Membrane association of polyomavirus middle-T antigen in an in vitro system.
Hofer U; Wehrle B; Ballmer-Hofer K
MGH/Harvard Cutaneous Biology Research Center, MGH-East, Charlestown, MA 02129, USA.
Virus research (NETHERLANDS) Feb 1995, 35 (2) p169-80, ISSN 0168-1702 Journal Code: 8410979
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

... to bind to and enter the lumen of dog pancreas microsomes supporting the concept that the carboxy-terminus of middle-T is an authentic membrane-**targeting** domain. Furthermore, wild-type middle-T, but not a truncated protein lacking the putative membrane anchor, specifically associates with artificial lipid bilayers.
?

Set	Items	Description
S1	0	(PHOSPHATIDYLINOSITOL (W) 3-KINASE) (S) (FUSION OR MUTANT - OR (CONSTITUTIVELY (W) ACTIVE))
S2	0	(PI (W) 3-KINASE) (S) (FUSION OR MUTANT OR (CONSTITUTIVELY (W) ACTIVE))
S3	0	(PI3-K) (S) (FUSION OR MUTANT OR (CONSTITUTIVELY (W) ACTIV-E))
S4	42572	(PHOSPHATIDYLINOSITOL (W) 3 (W) KINASE) OR (PI3 (W) KINASE) OR (PI (W) 3-KINASE)
S5	7747	S4 AND (MUTANT OR FUSION OR (CONSTITUTIVELY (W) ACTIVE))
S6	1375	S5 AND (P110 OR P85 OR ISH2)
S7	16	S6 AND ((CELL (W) MEMBRANE (W) TARGETING) OR MYRISTOYLATION OR FARNESYLATION OR PALMITTOYLATION)
S8	5	RD (unique items)
S9	13	S6 AND (MEMBRANE (W) LOCALIZATION)
S10	5	RD (unique items)
S11	4	S10 NOT S8
S12	433	S6 NOT PY>1996
S13	0	S12 AND (VECTOR)
S14	93	S5 AND (MEMBRANE (W) (LOCALIZATION OR TARGETING))

```
S15         13   S14 NOT PY>1996
S16          4   RD  (unique items)
?

COST
       15feb06 14:47:59 User259876 Session D843.2
            $6.12    1.799 DialUnits File155
               $2.86  13 Type(s) in Format  3
            $2.86  13 Types
     $8.98  Estimated cost File155
            $1.69    0.538 DialUnits File159
     $1.69  Estimated cost File159
           $12.97    2.198 DialUnits File5
    $12.97  Estimated cost File5
           $18.82    1.680 DialUnits File73
    $18.82  Estimated cost File73
            OneSearch, 4 files,  6.216 DialUnits FileOS
     $4.00  INTERNET
    $46.46  Estimated cost this search
    $47.34  Estimated total session cost   6.449 DialUnits
?
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Recall Text Clear Interrupt

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DATE: Wednesday, February 15, 2006 Printable Copy Create Case

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DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=AND			
L7	L6 not L2	66	L7
L6	(Phosphatidylinositol adj 3-kinase) and (myristoylation or farnesylation or palmitoylation)	80	L6
L5	(Phosphatidylinositol adj 3-kinase) same (myristoylation or farnesylation or palmitoylation)	0	L5
L4	L2 not L3	64	L4
L3	L2 and ((membrane adj targeting) or myristoylation or farnesylation or palmitoylation)	15	L3
L2	(Phosphatidylinositol adj 3-kinase) same (fusion or mutant or (constitutively adj active))	79	L2
L1	Klippel-Anke.in.	8	L1

PALM INTRANET

Day : Wednesday

Date: 2/15/2006
Time: 11:26:42

Inventor Name Search

Enter the **first few letters** of the Inventor's Last Name.
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